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EXAMINER	
CHEN, QING	
ART UNIT	PAPER NUMBER
2191	
MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/016,785	FERGUSON ET AL.	
	Examiner	Art Unit	
	Qing Chen	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 August 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7 and 9-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 9-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office action is in response to the amendment filed on August 18, 2008.

2. **Claims 1-7 and 9-30** are pending.

3. **Claims 1, 7, 12-16, 19-21, and 26** have been amended.

4. **Claim 8** has been cancelled.

5. **Claims 28-30** have been added.

Response to Amendment

Claim Objections

6. **Claims 1-7, 9-11, 22, 26, and 28** are objected to because of the following informalities:

- **Claim 1** recites the limitation "the available software update." Applicant is advised to change this limitation to read "the available update" for the purpose of providing it with proper explicit antecedent basis.
- **Claims 2-7, 9-11, and 28** depend on Claim 1 and, therefore, suffer the same deficiency as Claim 1.
- **Claims 1 and 9** contain a typographical error: "[T]he/said remote communication system" should read -- the/said remote communications system --.
- **Claim 26** contains the following typographical errors:
  - The comma (,) after the "means for remotely monitoring […]" limitation should be changed to a semicolon (;).
  - The word "and" after the "means for remotely monitoring […]" limitation should be deleted.

Appropriate correction is required.

7. **Claim 22** is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The claim does not constitute a further limitation of its parent claim because the parent claim, Claim 12, already recites the limitation "relaying, by a remote communication system, said available update [...]."

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. **Claims 1-7 and 9-27** are rejected under 35 U.S.C. 102(e) as being anticipated by **US 6,529,784 (hereinafter "Cantos")**.

As per **Claim 1**, Cantos discloses:

- a remote data storage system for storing identifying information of said software *(see Figure 1: 8; Column 5: 41-45, "Software information 11 is collected from various sources and*

used to update KB 8. In an embodiment of the invention, software information 11 is automatically collected from sources known to have useful information.");

- a remote processor for monitoring said remote data storage system to determine if an update is available for said software *(see Figure 1: 4; Column 5: 63-67 to Column 6: 1 and 2, "The control server 4 may include an alert engine 12. The alert engine 12 may monitor the KB 8 and/or update information transmitted to the KB 8 to determine when an alert should be issued to agents communicating with the control server 4. In the embodiment shown in FIG. 1, the alert engine 12 transmits the alert message through the control server 4 and its network connection 15.")*;

- a remote communications system operably connected to said remote processor, said remote communications system receiving said available update from said remote processor and relaying said available update to said work machine *(see Figure 1: 14; Column 6: 13-25, "The control server 4 may also access information in the KB 8 to determine when new software packages are available to customers. Upon finding that a new software package is available, the control server 4 may send a general message to all agents communicating with the control server 4 that the software package is available. Alternatively, the control server 4 may send a message that the software package is available to only those agents whose target computer systems are compatible with the new software package.")*;

- a machine communication system onboard the work machine and operably connected to the remote communications system, the machine communication system receiving the available update from the remote communications system *(see Figure 1: 1a; Column 8: 7-27, "According to an embodiment of the present invention, information received by the agent from*

the control server 4 may include alert information and responses to user queries." and "Two examples of user queries include requests for information on the effect on the target computer system of upgrading, installing or removing a software package, and the availability of upgraded versions of software packages currently used by the target computer system." and "When the agent receives information from the control server 4, as determined at step 200, the agent determines if the information is related to the target computer system at step 202."); [Examiner's Note: It is inherent that a target computer system contains a machine communication system, such as a NIC (network interface card), that allows the target computer system to communicate over a computer network.] and

- a machine processor onboard the work machine and operably connected to the machine communication system, the machine processor installing the available update on the electronic control module *(see Figure 1: 1a; Column 8: 66 and 67 to Column 9: 1-6, "Upon receiving this type of message, the agent's communication to the user may include an option for the user to reply with an instruction to download and install the software patch when the primary software package is installed. In that case, after communicating the relevant information to the user, the agent would proceed to block 210 and would perform these download and installation functions if instructed to do so by the user.")*. [Examiner's Note: It is inherent that a target computer system contains a machine processor for executing computer instructions, such as a software installation.]

As per **Claim 2**, the rejection of **Claim 1** is incorporated; and Cantos further discloses:

- an interface for notifying an owner of said work machine of said available update *(see Column 8: 52-58, "Other messages, e.g., alert messages, responses to user queries and unsolicited upgrade availability information, may be brought to the attention of the user. In this case, step 204 initiates the presentation of relevant information to the user, either through the management tool GUI, electronic mail, a printed report or some other form, at step 208.").*

As per **Claim 3**, the rejection of **Claim 2** is incorporated; and Cantos further discloses:

- wherein said interface allows said owner to communicate acceptance of said available update and wherein said available update is relayed to said work machine upon said owner communicating said acceptance *(see Column 8: 66 and 67 to Column 9: 1-6, "Upon receiving this type of message, the agent's communication to the user may include an option for the user to reply with an instruction to download and install the software patch when the primary software package is installed. In that case, after communicating the relevant information to the user, the agent would proceed to block 210 and would perform these download and installation functions if instructed to do so by the user.").*

As per **Claim 4**, the rejection of **Claim 3** is incorporated; and Cantos further discloses:

- wherein said interface includes an electronic message for notifying said owner *(see Column 8: 52-58, "Other messages, e.g., alert messages, responses to user queries and unsolicited upgrade availability information, may be brought to the attention of the user. In this case, step 204 initiates the presentation of relevant information to the user, either through the management tool GUI, electronic mail, a printed report or some other form, at step 208.").*

As per **Claim 5**, the rejection of **Claim 4** is incorporated; and Cantos further discloses:

- wherein said electronic message includes a link to a web site allowing said owner to communicate acceptance of said available update *(see Column 6: 39-42, "A user query may be submitted to the control server 4 either through the management tool GUI (not shown) and the agent or, alternatively, directly from the user through a Web browser (not shown) and the Web server 16.").*

As per **Claim 6**, the rejection of **Claim 3** is incorporated; and Cantos further discloses:

- a billing system operably connected to said remote processor for billing said owner for said accepted available update *(see Figure 1: 5; Column 5: 33-39, "The CIB 5 may also contain billing or subscription information for a particular customer. The control server 4 may access this subscription or billing information periodically or with each communication to the agent to determine the type of operating system the customer is using, to assess whether the customer is up-to-date on payments or to transmit billing information to the agent.").*

As per **Claim 7**, the rejection of **Claim 1** is incorporated; and Cantos further discloses:

- a machine data storage system for storing said identifying information, said identifying information being relayed from said machine data storage system to said remote data storage system *(see Figure 1: 1a; Column 5: 40-62, "In other embodiments, the software information may be collected manually. The automatically collected information is then evaluated, analyzed for importance and formatted before being used to update KB 8. Sources of*

software information 11 include, among other things, software vendors, public bulletin boards and customer feedback. Customer feedback information may be automatically collected by agents 2a to 2m and transmitted to the control server."); [Examiner's Note: It is inherent that a target computer system contains a data storage system for storing computer data, such as software information.]

- wherein the machine processor polls the electronic control module for the identifying information *(see Column 4: 5-9, "An agent associated with a target computer interrogates the target computer for system information. The agent may be implemented using a polling-only approach, in which the agent periodically interrogates the target computer system for information, an interrupt-based approach, in which the agent interrogates the target computer when an extraordinary event occurs, or a hybrid or any other approach.")*.

As per **Claim 9**, the rejection of **Claim 1** is incorporated; and Cantos further discloses:

- wherein said remote communications system comprises wireless communication means *(see Column 4: 67 to Column 5: 1 and 2, "Like customer network communications link 3, network connections 6a, 6b, 6c and 16 may consist of wire line or wireless connections.")*.

As per **Claim 10**, the rejection of **Claim 9** is incorporated; and Cantos further discloses:

- wherein said wireless communication means is a cellular system *(see Column 3: 45-50, "Customer network communications link 3 may consist of a wire line (such as twisted-pair telephone wire, coaxial cable, electric power line, optical fiber wire, leased line or the like) or wireless (such as satellite, cellular, radio frequency or the like) connection.")*.

As per **Claim 11**, the rejection of **Claim 9** is incorporated; and Cantos further discloses:

- wherein said wireless communication means is a satellite system *(see Column 3: 45-50, "Customer network communications link 3 may consist of a wire line (such as twisted-pair telephone wire, coaxial cable, electric power line, optical fiber wire, leased line or the like) or wireless (such as satellite, cellular, radio frequency or the like) connection.").*

As per **Claim 12**, Cantos discloses:

- storing identifying information of said software in a remote data storage system *(see Figure 1: 8; Column 5: 41-45, "Software information 11 is collected from various sources and used to update KB 8. In an embodiment of the invention, software information 11 is automatically collected from sources known to have useful information.")*;

- monitoring, by a remote processor, said remote data storage system to determine if an update for said software is available *(see Figure 1: 4; Column 5: 63-67 to Column 6: 1 and 2, "The control server 4 may include an alert engine 12. The alert engine 12 may monitor the KB 8 and/or update information transmitted to the KB 8 to determine when an alert should be issued to agents communicating with the control server 4. In the embodiment shown in FIG. 1, the alert engine 12 transmits the alert message through the control server 4 and its network connection 15.")*;

- relaying, by a remote communication system, said available update from said remote data storage system to said work machine *(see Figure 1: 14; Column 6: 13-25, "The control server 4 may also access information in the KB 8 to determine when new software packages are*

available to customers. Upon finding that a new software package is available, the control server 4 may send a general message to all agents communicating with the control server 4 that the software package is available. Alternatively, the control server 4 may send a message that the software package is available to only those agents whose target computer systems are compatible with the new software package."); and

- installing, by a machine processor onboard the work machine, the available update on the electronic control module *(see Figure 1: 1a; Column 8: 66 and 67 to Column 9: 1-6, "Upon receiving this type of message, the agent's communication to the user may include an option for the user to reply with an instruction to download and install the software patch when the primary software package is installed. In that case, after communicating the relevant information to the user, the agent would proceed to block 210 and would perform these download and installation functions if instructed to do so by the user.")*. [Examiner's Note: It is inherent that a target computer system contains a machine processor for executing computer instructions, such as a software installation.]

As per **Claim 13**, the rejection of **Claim 12** is incorporated; and Cantos further discloses:

- notifying an owner of said work machine of the availability of said update *(see Column 8: 52-58, "Other messages, e.g., alert messages, responses to user queries and unsolicited upgrade availability information, may be brought to the attention of the user. In this case, step 204 initiates the presentation of relevant information to the user, either through the management tool GUI, electronic mail, a printed report or some other form, at step 208.")*.

As per **Claim 14**, the rejection of **Claim 13** is incorporated; and Cantos further discloses:

- awaiting acceptance by said owner of said available update *(see Column 8: 66 and 67 to Column 9: 1-6, "Upon receiving this type of message, the agent's communication to the user may include an option for the user to reply with an instruction to download and install the software patch when the primary software package is installed. In that case, after communicating the relevant information to the user, the agent would proceed to block 210 and would perform these download and installation functions if instructed to do so by the user.").*

As per **Claim 15**, the rejection of **Claim 14** is incorporated; and Cantos further discloses:

- wherein said update is installed on the electronic control module if said owner accepts said available update *(see Column 8: 66 and 67 to Column 9: 1-6, "Upon receiving this type of message, the agent's communication to the user may include an option for the user to reply with an instruction to download and install the software patch when the primary software package is installed. In that case, after communicating the relevant information to the user, the agent would proceed to block 210 and would perform these download and installation functions if instructed to do so by the user.").*

As per **Claim 16**, the rejection of **Claim 15** is incorporated; and Cantos further discloses:

- billing said owner for said available update upon acceptance of said owner of said available update *(see Figure 1: 5; Column 5: 33-39, "The CIB 5 may also contain billing or subscription information for a particular customer. The control server 4 may access this subscription or billing information periodically or with each communication to the agent to*

determine the type of operating system the customer is using, to assess whether the customer is up-to-date on payments or to transmit billing information to the agent.").

As per **Claim 17**, the rejection of **Claim 13** is incorporated; and Cantos further discloses:

- wherein said owner is notified of said available update by an electronic communication *(see Column 8: 52-58, "Other messages, e.g., alert messages, responses to user queries and unsolicited upgrade availability information, may be brought to the attention of the user. In this case, step 204 initiates the presentation of relevant information to the user, either through the management tool GUI, electronic mail, a printed report or some other form, at step 208.").*

As per **Claim 18**, the rejection of **Claim 17** is incorporated; and Cantos further discloses:

- wherein said electronic communication includes a link to a web site allowing said owner to communicate acceptance of said available update *(see Column 6: 39-42, "A user query may be submitted to the control server 4 either through the management tool GUI (not shown) and the agent or, alternatively, directly from the user through a Web browser (not shown) and the Web server 16.").*

As per **Claim 19**, the rejection of **Claim 17** is incorporated; and Cantos further discloses:

- relaying said identifying information from said work machine to said remote data storage system *(see Column 5: 40-62, "In other embodiments, the software information may be collected manually. The automatically collected information is then evaluated, analyzed for*

importance and formatted before being used to update KB 8. Sources of software information 11 include, among other things, software vendors, public bulletin boards and customer feedback. Customer feedback information may be automatically collected by agents 2a to 2m and transmitted to the control server.").

As per **Claim 20**, the rejection of **Claim 19** is incorporated; and Cantos further discloses:

- polling said electronic control module in said work machine to obtain said identifying information *(see Column 4: 5-9, "An agent associated with a target computer interrogates the target computer for system information. The agent may be implemented using a polling-only approach, in which the agent periodically interrogates the target computer system for information, an interrupt-based approach, in which the agent interrogates the target computer when an extraordinary event occurs, or a hybrid or any other approach.")*; and

- storing said identifying information in a machine data storage system *(see Figure 1: 1a)*. [Examiner's Note: It is inherent that a target computer system contains a data storage system for storing computer data, such as software information.]

As per **Claim 21**, the rejection of **Claim 19** is incorporated; and Cantos further discloses:

- relaying said identifying information from a machine communication system to a remote communication system for storage in said remote data storage system *(see Figure 1: 1a)*. [Examiner's Note: It is inherent that a target computer system contains a machine communication system, such as a NIC (network interface card), that allows the target computer system to communicate over a computer network.]

As per **Claim 22**, the rejection of **Claim 12** is incorporated; and Cantos further discloses:

- wherein said available update is relayed by a remote communication system *(see Figure 1: 14; Column 6: 13-25, "The control server 4 may also access information in the KB 8 to determine when new software packages are available to customers. Upon finding that a new software package is available, the control server 4 may send a general message to all agents communicating with the control server 4 that the software package is available. Alternatively, the control server 4 may send a message that the software package is available to only those agents whose target computer systems are compatible with the new software package.").*

As per **Claim 23**, the rejection of **Claim 22** is incorporated; and Cantos further discloses:

- wherein said remote communication system comprises wireless means *(see Column 4: 67 to Column 5: 1 and 2, "Like customer network communications link 3, network connections 6a, 6b, 6c and 16 may consist of wire line or wireless connections.").*

As per **Claim 24**, the rejection of **Claim 23** is incorporated; and Cantos further discloses:

- wherein said wireless means is a cellular system *(see Column 3: 45-50, "Customer network communications link 3 may consist of a wire line (such as twisted-pair telephone wire, coaxial cable, electric power line, optical fiber wire, leased line or the like) or wireless (such as satellite, cellular, radio frequency or the like) connection.").*

As per **Claim 25**, the rejection of **Claim 23** is incorporated; and Cantos further discloses:

- wherein said wireless means is a satellite system *(see Column 3: 45-50, "Customer network communications link 3 may consist of a wire line (such as twisted-pair telephone wire, coaxial cable, electric power line, optical fiber wire, leased line or the like) or wireless (such as satellite, cellular, radio frequency or the like) connection.").*

As per **Claim 26**, Cantos discloses:

- means for remotely storing identifying information *(see Figure 1: 8; Column 5: 41-45, "Software information 11 is collected from various sources and used to update KB 8. In an embodiment of the invention, software information 11 is automatically collected from sources known to have useful information.")*;

- means for remotely monitoring said stored identifying information to determine if an update is available *(see Figure 1: 4; Column 5: 63-67 to Column 6: 1 and 2, "The control server 4 may include an alert engine 12. The alert engine 12 may monitor the KB 8 and/or update information transmitted to the KB 8 to determine when an alert should be issued to agents communicating with the control server 4. In the embodiment shown in FIG. 1, the alert engine 12 transmits the alert message through the control server 4 and its network connection 15.")*;

- means for remotely communicating with the work machine to relay said available update to the work machine *(see Figure 1: 14; Column 6: 13-25, "The control server 4 may also access information in the KB 8 to determine when new software packages are available to customers. Upon finding that a new software package is available, the control server 4 may send a general message to all agents communicating with the control server 4 that the software package is available. Alternatively, the control server 4 may send a message that the software*

package is available to only those agents whose target computer systems are compatible with the new software package."); and

- means onboard the work machine for installing the available update on the electronic control module *(see Figure 1: 1a; Column 8: 66 and 67 to Column 9: 1-6, "Upon receiving this type of message, the agent's communication to the user may include an option for the user to reply with an instruction to download and install the software patch when the primary software package is installed. In that case, after communicating the relevant information to the user, the agent would proceed to block 210 and would perform these download and installation functions if instructed to do so by the user.").* [Examiner's Note: It is inherent that a target computer system contains a machine processor for executing computer instructions, such as a software installation.]

As per **Claim 27**, the rejection of **Claim 26** is incorporated; and Cantos further discloses:

- means for notifying an owner of said work machine of said available update *(see Column 8: 52-58, "Other messages, e.g., alert messages, responses to user queries and unsolicited upgrade availability information, may be brought to the attention of the user. In this case, step 204 initiates the presentation of relevant information to the user, either through the management tool GUI, electronic mail, a printed report or some other form, at step 208.").*

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. **Claims 28-30** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Cantos**.

As per **Claim 28**, the rejection of **Claim 1** is incorporated; however, Cantos does not disclose:

- wherein the mechanical system is an engine.

Official Notice is taken that it is old and well-known within the computing art to control or monitor an engine. Applicant has submitted in the "Background" section of the specification that electronic control modules may control and monitor an engine of a machine. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include wherein the mechanical system is an engine. The modification would be obvious because one of ordinary skill in the art would be motivated to update the electronic control module for an engine.

As per **Claim 29**, the rejection of **Claim 12** is incorporated; however, Cantos does not disclose:

- wherein the mechanical system is an engine.

Official Notice is taken that it is old and well-known within the computing art to control or monitor an engine. Applicant has submitted in the "Background" section of the specification that electronic control modules may control and monitor an engine of a machine. Therefore, it

would have been obvious to one of ordinary skill in the art at the time the invention was made to include wherein the mechanical system is an engine. The modification would be obvious because one of ordinary skill in the art would be motivated to update the electronic control module for an engine.

As per **Claim 30**, the rejection of **Claim 26** is incorporated; however, Cantos does not disclose:

- wherein the mechanical system is an engine.

Official Notice is taken that it is old and well-known within the computing art to control or monitor an engine. Applicant has submitted in the "Background" section of the specification that electronic control modules may control and monitor an engine of a machine. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include wherein the mechanical system is an engine. The modification would be obvious because one of ordinary skill in the art would be motivated to update the electronic control module for an engine.

Response to Arguments

12. Applicant's arguments with respect to Claims 1, 12, and 26 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Qing Chen whose telephone number is 571-270-1071. The Examiner can normally be reached on Monday through Thursday from 7:30 AM to 4:00 PM. The Examiner can also be reached on alternate Fridays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Wei Zhen, can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Q. C./

Examiner, Art Unit 2191

/Wei Y Zhen/

Supervisory Patent Examiner, Art Unit 2191